The three forks
on the road of being

The verb "to be" has two senses. Consequently raising two issues (that of existing and that of being), to which a dilemma is added (that of belonging), that comes out from the limits of the universe.

The *dilemma of belonging* arises when a definition is made within a universe and it can be summarized with the following statement: *An element in the universe either belongs to a set or to its complement.* This dilemma appears when the elements can be named. All of the elements in the universe are something, that is, they are in the sense **1a** (see the front page article). This situation is summarized in the following table.

dilemma of belonging (Carroll)	
A	$\sim A = \mathcal{U} - A$
to be-something in a direct way	to be-something in an indirect way
to belong to the set	to belong to its complement

The universe is the part of the whole that is being considered.

$\mathcal{U}$	The Whole
to be-something	to be
to be in a real sense	to be in an abstract sense
to belong	to exist

The elements of the universe appear, while elements outside of the universe hide. Some of them can quickly be brought into the universe, others take more effort and yet others—it might be thought—shall never enter. But all of these elements have something in common: they simply exist, they have no name. The situation is presented in the following table.

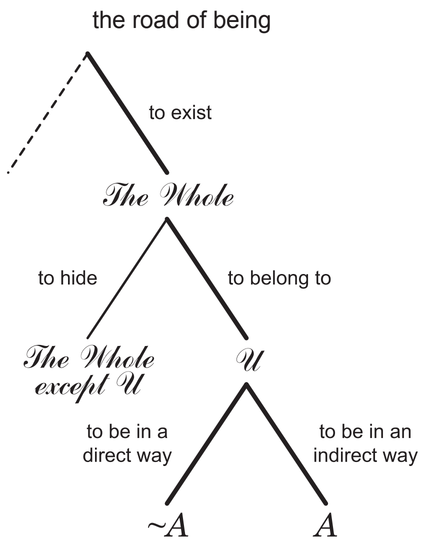
the issue of being (Parmenides)	
$\mathcal{U}$	The Whole except $\mathcal{U}$
to be-something	to be but not to be-something
to be in real sense	to be in abstract sense but not to be in real sense
to belong	to exist but not to belong
to have name	to exist but not to have name
to appear	to hide
not to hide	not to appear
ἔστιν	οὐκ ἔστιν

The issue of being, which can be stated like this: *An element of the whole is contained in the universe and is something* (in the sense **1a**) *or it is outside of it and simply is* (in the sense **1b**), lies between these two worlds.

Finally, all elements exist: *"The entity is."* If they ceased to exist, they would cease being elements. They would be non-existent, in the sense that there is no way to name that which does not exist, other than the roundabout method of saying "that which does not exist." Nonexistence is not an option for an entity; it would mean its death. There is no conservation law for entities. The *issue of existing* is shown in the following table.

issue of existing (Xenophanes, Hamlet)	
The Whole	
that which exists	that which not exists
that which is in abstract sense	that which is not in abstract sense
ὡς ἔστιν	

In summary, there are three forks on *the road of being.* The first one is the existential issue, of interest to literature and religion; the second is the essential issue, of interest to philosophy; the last one, the dilemma of belonging, is of interest to mathematics and science.



This image of the road of being solves one of the enigmas in Parmenides' poem. The first paragraph, which was printed in the same space of the previous issue, Parmenides refers to the *first fork.* There he speaks of *being* in an abstract sense (**2b**), ὡς ἔστιν = *that which is,* and calls it "whole" and "homogenous," because it is the only one, another road does not exist. In the second paragraph, he refers to the issue of being, that is, to the *second fork.* There he speaks of *hiding,* οὐκ ἔστιν, i.e. what is done by something that cannot be named, as opposed to *appear,* ἔστιν, i.e. what is done by something that can be called "true" (being, in the sense **2a**).

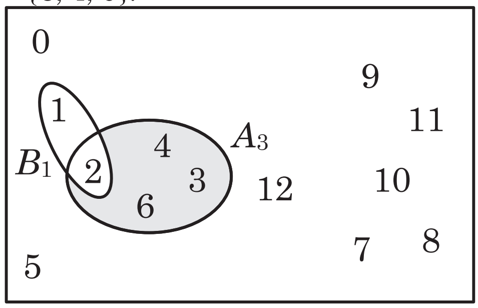
Translating a work like Parmenides', of which we only have fragments, far removed in time, involving concepts that are specific to a language and acquired while learning to speak, and written in Homeric Greek, is a hard task. The three forks mentioned here are related to three great questions, but that shall be the subject of a future article.

MAIN ARTICLE

To be and to belong

(continued from page 2)

the operation $A_3 \cap \sim B_1$. Each term in this expression corresponds to an affirmation: first, the affirmation "the element belongs to A_3;" second, the affirmation "the element belongs to $\sim B_1$." The result is the region where both affirmations are valid: $A_3 \cap \sim B_1 = \{3, 4, 6\}$.



logic

Logic is that part of philosophy which links affirmations to reach new affirmations. The conclusion drawn from the previous example is: *To simultaneously be two things something must be each one of them separately.* In set theory terms: *to belong to two sets is to belong to each one of them.*

Ask Jotajota

Send your question to: jjluetich@luventicus.org

Francisco from Monterrey (MX) asks:

—*¿What is the difference between criterion and definition?*

—To define a set is to group together the elements of a universe. This grouping may be achieved without applying any criterion (for example, choosing elements at random), applying a criterion that cannot be formalized (for example, of an aesthetic kind), or applying a criterion that can be formalized (for example, of a mathematical kind). In the first case, the definition can only be made by enumerating the elements; in the second case, the subject that applies that criterion must be consulted to decide whether or not an element belongs to the set; in the last case any selector would reach the same result. This is the most interesting one, not only because the definition is independent of the subject (or common to many subjects) but because concepts are derived from that sort of definition. The concept of sports, for example, arises from a definition made with a formally expressed criterion, which in turn is the result of analyzing a series of specific cases (elements). Confronting definitions of this kind is the subject of dialectics.

José Antonio from Guayana City (VE) asks:

—*¿Why isn't three the same as 3?*

—The first sign, according to the context, may correspond to an indeterminate number, as when you say "some three persons." The second is the formal (mathematical) expression for an amount. A set must not have identical elements, or different names for the same element.